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- 25. The HIV-1 virus of claim 23, wherein said amino acid sequence comprises more than 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.
- 26. The HIV-1 virus of claim 25, wherein said amino acid sequence comprises 3 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.
- 27. The HIV-1 virus of claim 25, wherein said amino acid sequence comprises 5 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.
- 28. The HIV-1 virus of claim 25, wherein said amino acid sequence comprises 7 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.
  - 29. A purified HIV-1 virus,

wherein said virus encodes a Pol protein comprising an amino acid sequence that comprises at least 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

30. The HIV-1 virus of claim 29, wherein said amino acid sequence comprises 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.





31. The HIV-1 virus of claim 29, wherein said amino acid sequence comprises more than 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

- 32. The HIV-1 virus of claim 31, wherein said amino acid sequence comprises 3 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.
- 33. The HIV-1 virus of claim 31, wherein said amino acid sequence comprises 5 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.
- 34. The HIV-1 virus of claim 31, wherein said amino acid sequence comprises 7 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.
  - 35. A purified HIV-1 virus,

wherein said virus encodes an Env protein comprising an amino acid sequence that comprises at least 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

36. The HIV-1 virus of claim 35, wherein said amino acid sequence comprises 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.





- 37. The HIV-1 virus of claim 35, wherein said amino acid sequence comprises more than 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.
- 38. The HIV-1 virus of claim 37, wherein said amino acid sequence comprises 3 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.
- 39. The HIV-1 virus of claim 37, wherein said amino acid sequence comprises 5 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.
- 40. The HIV-1 virus of claim 37, wherein said amino acid sequence comprises 7 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

41. A purified HIV-1 polypeptide fragment,

- wherein said polypeptide fragment binds to antibodies in LAS patient sera, and wherein said polypeptide fragment comprises an amino acid sequence that comprises at least 1 amino acid residue of the amino acid sequence of HIV-1ELI that is
- 42. The polypeptide fragment of claim 41, wherein said polypeptide fragment comprises 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.







- 43. The polypeptide fragment of claim 41, wherein said polypeptide fragment comprises more than 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.
- 44. The polypeptide fragment of claim 43, wherein said polypeptide fragment comprises 3 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.
- 45. The polypeptide fragment of claim 43, wherein said polypeptide fragment comprises 5 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.
- 46. The polypeptide fragment of claim 43, wherein said polypeptide fragment comprises 7 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.
- 47. The polypeptide fragment of any of claims 41-46, wherein said polypeptide fragment comprises 5-150 amino acid residues.
- 48. The polypeptide fragment of claim 47, wherein said polypeptide fragment comprises 5-250 amino acid residues.
- 49. The polypeptide fragment of claim 47, wherein said polypeptide fragment comprises one or more Asn-X-Thr or Asn-X-Ser groups.
- 50. The polypeptide fragment of any of claims 41-46, wherein said polypeptide fragment is a fragment of HIV-1 Gag.



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- 51. The polypeptide fragment of any of claims 41-46, wherein said polypeptide fragment is a fragment of HIV-1 Pol.
- 52. The polypeptide fragment of any of claims 41-46, wherein said polypeptide fragment is a fragment of HIV-1 Env.
- 53. A purified HIV-1 nucleic acid fragment,
  wherein said nucleic acid fragment encodes a polypeptide fragment,
  wherein said polypeptide fragment binds to antibodies in LAS patient sera, and
  wherein said polypeptide fragment comprises an amino acid sequence that
  comprises at least 1 amino acid residue of the amino acid sequence of HIV-1ELI that is
  not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.
- 54. The nucleic acid fragment of claim 53, wherein said encoded polypeptide fragment comprises 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.
- 55. The nucleic acid fragment of claim 53, wherein said encoded polypeptide fragment comprises more than 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.
- 56. The nucleic acid fragment of claim 55, wherein said encoded polypeptide fragment comprises 3 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.





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- 57. The nucleic acid fragment of claim 55, wherein said encoded polypeptide fragment comprises 5 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.
- 58. The nucleic acid fragment of claim 55, wherein said encoded polypeptide fragment comprises 7 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.
- 59. The nucleic acid fragment of any of claims 53-58, wherein said encoded polypeptide fragment comprises 5-150 amino acid residues.
- 60. The nucleic acid fragment of claim 59, wherein said encoded polypeptide fragment comprises 5-250 amino acid residues.
- 61. The nucleic acid fragment of claim 59, wherein said encoded polypeptide fragment comprises one or more Asn-X-Thr or Asn-X-Ser groups.
- 62. The nucleic acid fragment of any of claims 53-58, wherein said polypeptide fragment is a fragment of HIV-1 Gag.
- 63. The nucleic acid fragment of any of claims 53-58, wherein said polypeptide fragment is a fragment of HIV-1 Pol.
- 64. The nucleic acid fragment of any of claims 53-58, wherein said polypeptide fragment is a fragment of HIV-1 Env.--